The final paragraph of the "Reply to Criticism" requires a word of comment. We are first charged with imputing blame to the author for the non-insertion of detail which he had given elsewhere. We can only reply, that we did not blame him for it; all we did was to deny his right, however freely he may have acknowledged the labours of others twenty years

ago, to claim their results as his own now.

The last sentence runs thus, "That they [i.e. ourselves] should have commenced the second paragraph of their letter with 'The question has nothing to do with the Eozoon controversy,' is therefore, to say the least of it, 'most significant'!" If this means any thing, it conveys an insinuation which is as false as it is uncalled for. If Mr. Carter wishes an explanation of our unwillingness to join in the Eozoon controversy he need not look beyond his own "Reply to Criticism" for our reason. A simple statement verified at every point by accurate references to authorities, drawn up in a friendly spirit, and with no object except the desire to correct an injustice which we believed the author to have committed unconsciously, and a reference to a quotation which, owing to his own misdirection, was not the passage he intended to allude to, have brought down upon us not merely a taunt of ignorance, but the serious charge of "suppressing the truth." Under these circumstances your readers will not wonder at our unwillingness to enter into the discussion of a confessedly difficult and complicated subject, with one so ready in the denunciation of those who do not happen to agree with him in the reading of evidence and the correlation of facts. We may, however, say this much, that our individual views as to the structure of Eozoon have not been affected by Mr. Carter's additions to the literature of the subject. Declining further correspondence on the subject of this letter. We have the honour to be, Gentlemen,

Faithfully yours, W. K. PARKER, T. RUPERT JONES, HENRY B. BRADY.

BIBLIOGRAPHICAL NOTICE.

The Birds of Shetland, with Observations on their Habits, Migration, and Occasional Appearance. By the late HENRY L. SAXBY, M.D., of Balta Sound, Unst. Edited by his brother STEPHEN H. SAXBY, M.A. Edinburgh: 1874. Svo, pp. xviii, 398, pls. 8.

SHETLAND from its geographical position deserved the devotion of a volume to its ornithology. Thirty years have passed since any 21*

connected account of its birds was published; and that consisted of a list, meagre in the amount of information it conveyed, and, as the book now before us shows, inaccurate in many respects. Numerous ornithologists in the mean time have visited this interesting group of islands, but none have made a sufficiently long stay to do more than communicate to the world an occasional note, except the lamented author of 'The Birds of Shetland,' who, unfortunately, has not lived to complete his manuscript, much less to see any portion of it in the printer's hands. Fraternal affection, however, has supplied the remainder from the late Dr. Saxby's note-books; and Mr. Stephen Saxby is, we think, on the whole to be congratulated on the way in which he has edited his deceased brother's work; for, though not pretending to scientific distinction, his sympathies are so clearly turned that way, and he is so highly appreciative of the author's labours, that his self-imposed duty is far better done than is usual in similar cases. He remarks, and rightly as it seems to us, in his preface, that the present book differs from all the numerous monographs by which in this generation British

ornithology has been so largely promoted, because

"It tells of a most marked and rapid change in a Fauna actually going in a direction the very opposite of that which we are accustomed to deplore as the result of the development of material prosperity and of increasing civilization. It is true that the customary issue of contact with this latter force is being only too grievously seen in the case of some few species, but as regards a large number of others the accession is very decided. The planting a few trees, carefully sheltered by stone walls from the sweeping gales of the Atlantic, has had a curiously marked effect in attracting birds hitherto unknown as visitors to the islands; an effect, indeed, altogether disproportionate to the small scale on which the experiment has been tried. The extensive and often extremely rich peat-grounds of Shetland attest, not only by their existence, but by the occasional conservation of the actual roots and trunks, the former prevalence of luxuriant forest growth where all is now a treeless wild; though, in the present state of our knowledge as to the distribution of species, none may venture to assume that at that remote epoch it would have been possible for the Fauna to have been as in these days. There can, however, be little doubt that in numerous instances as the author was adding to the Shetland list now one and now another of our southern birds, he was but chronicling the return, after the lapse of many a century, of a species reappearing after its long exile."

We might, perhaps, take exception to the supposition of a few plantations "attracting" these visitors; but if, instead, we read "retaining," the passage seems to be unexceptionable, and, indeed, is somewhat consoling; for the proofs that "Man marks the earth with ruin" are but too distinctly traced in the vanishing faunas of group after group of islands; nor does his dominion over the fowls of the air, like his control over the rest of nature, "stop at the shore." But we must remark that these successive points of

interest are not, to our regret, brought out in this volume quite so clearly as they should have been. It is rather hard upon the readers of any book that each should have to make an abstract of its contents for himself; and such a summary as we are sure the Author would, and we think the Editor might, have given us would have here been very acceptable. From the list at the end we can only make out that there are about sixteen species which seem to be becoming commoner than formerly in Shetland, and all but three of them naturally are perching birds; of the rest, the Woodcock's name tells us of its arboreal tastes, and the Water-Rail's predilections in the same direction are easily understood when we recollect what a "tree" is apt to be like on a stormswept island in lat. 61° N. or thereabouts; but we do not see how the Lapwing can have been affected by planting, and think that some other cause must be assigned for its gaining ground, though this cause we are left to seek. Still the fact seems to be unquestionable that the avifauna of Shetland is growing, not merely in the way told us by Gilbert White's old observation, to the effect that the place which is best looked after yields most (for that may be said of almost any district), but from the increased number of individual birds as well as of species which breed on the islands; while, on the other hand, those which are reported as decreasing are but few in number; and, indeed, only one of them, the Razorbill (Alca torda), seems to demand consideration; for the statement that such birds as the Golden Eagle and Snowy Owl formerly bred in Shetland is unsupported by satisfactory evidence. Why the Razorbill should be diminishing in numbers is not at all clear; the suggestion (p. 314) that it "offers an easier mark to gunners," being "a good deal bigger than the Guillemot," is inadmissible if the Common Guillemot (Uria troile) be meant, for the simple reason that that bird is slightly larger than the Razorbill; and if the Tysty (U. grylle) be the species intended, we have at once a very different set of conditions. Unless we are mistaken, the habits of the two species differ considerably-one seeking its food much further from its breeding-quarters than the other, and the food of each not being, we suspect, precisely identical. There is also the fact that the Tysty lays at least twice as many eggs as its relative; though in this there may not be quite so much importance as at first would appear, since Mr. Darwin tells us (on what authority he does not say, but it is doubtless not bad) that the Fulmar Petrel, which lays but one egg, is believed to be the most numerous bird in the world. However, the relation which production bears to existence is, as all must know, a most complicated problem, and any consideration of it would lead us far from our present business, though we have thought these remarks not inopportune as bearing upon a general question interesting to all naturalists, that of the supersession of certain species by others.

To return to the 'Birds of Shetland.' It is plain matter of fact from one end to the other, and full of information which is always valuable, though, perhaps, not of the very best quality, or such as is accumulated by profound research. Apart, indeed, from the subject in hand, neither Author or Editor can be regarded as a very high authority, or as knowing very much of matters ornithological: this is shown by the latter's designation of a worthy gentleman as one "who has for so many years sat at the focal point," which cannot fail to raise a smile on the face of those who are best fitted to appreciate his scientific efforts and ability. Another merit of the book is that its author has resisted all those attempts at fine writing to which most men with such a subject would have succumbed. We have no fabulous narratives interspersed, and no mottoes from The Pivate to distract our attention. Claud Halero does not appear in the volume; and though we do indeed meet with Magnus Troil (p. 87), it is only to show that he was not a better ornithologist than most of his countrymen. This is as it should be. We like the hairs and the butter served in separate dishes.

PROCEEDINGS OF LEARNED SOCIETIES.

ROYAL SOCIETY.

June 11, 1874.—Joseph Dalton Hooker, C.B., President, in the Chair.

"Note on the alleged Existence of Remains of a Lemming in Cavedeposits of England." By Professor Owen, C.B., F.R.S.

In the "Report on the Exploration of Brixham Cave" (Phil. Trans. 1873) it is stated (p. 560):—"With the appearance in the cave of the smaller common rodents now living in this country, we have to note a remarkable exception, that of the Lemming (Lagomys spelæus)." And again, in the list of animal-remains as determined by Dr. Falconer and by Mr. Busk, there occurs (p. 556):—"16. Lagomys spelæus. Lemming . 1." This is throughout the "Report" treated as an original discovery, the importance of which is impressed upon the Royal Society by the remark:—"This circumstance tends to give a greater antiquity to a portion of the smaller remains than from their condition and position we might have been disposed to assign to them" (ib. p. 560, note). These remains are referred to "the smaller common rodents now living in this country," viz. "Hare, Rabbit, Water-rats," "at least two species of Arvicola" (ib. p. 548).

The supposed existence of remains of a Grisly Bear in the Brixham Cave (Mr. Busk having "reason to believe that bearremains referred to *Ursus priscus* belong in fact to *Ursus ferow*"—an "important determination") leads to the remark:—"The presence of another small North-American animal has been ascertained, viz. the Lemming" (ib. p. 556). At the date of publication of my 'British Fossil Mammals,' it is true that no fossil evidence of a Lemming (Georgehus, Illiger; Lemmus, Link) had